SOLAR CELL STRUCTURE WITH SOLAR CELLS HAVING REVERSE-BIAS PROTECTION USING AN IMPLANTED CURRENT SHUNT

ABSTRACT OF THE DISCLOSURE

A solar cell structure includes a solar cell of two or more semiconductor layers in facing contact with each other. The semiconductor layers constitute a semiconductor junction producing a voltage between the semiconductor layers when illuminated. A shunt formed of an altered material extends between and at least partially through the semiconductor layers. The shunt has an asymmetric current-voltage characteristic of passing a small current when voltage-biased in a forward direction and passing a large current when voltage-biased in a reverse direction.